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**Peer-Reviewed Publications, Books, Book Chapters,  
Invited Conferences  
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**PEER-REVIEWED PUBLICATIONS**

**Manuscripts 2023**

**308.** Jacquot P, Muñoz-Garcia J, Fleury M, Cochonneau D, Gaussin R, Enouf E, Roze E, Ollivier E, Cinier M, **Heymann D**. Engineering of a bispecific nanofitin with immune checkpoint inhibitory activity conditioned by the cross-arm binding to EGFR and PDL1. **Biomolecules 2023, 13 :636**

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**306.** Oliver L, Álvarez-Arenas A, Salaud C, Jiménez-Sánchez J, Calvo GF, Belmonte-Beitia J, Blandin S, Vidal L, Pérez V, **Heymann D**, Vallette FM. A simple 3D cell culture method for studying the interactions between human mesenchymal stromal/stem cells and patients derived glioblastoma. **Cancers 2023, 15:1304**.

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**300.** Muñoz-Garcia J, Vargas-Franco JW, Brounais-Le-Royer B, Cochonneau D, Amiaud J, Heymann MF, **Heymann D**, Lézot F. Inhibiting endothelin receptors with macitentan strengthens the bone protective action of RANKL inhibition and reduces metastatic dissemination in osteosarcoma. **Cancers 2022, 14:1765**.

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R, Cortés-Domínguez I, Ortiz-de-Solórzano C. Design and validation of a tunable inertial microfluidic system for the efficient enrichment of circulating tumor cells in blood. **Bioengineering & Translational Medicine** 2022:e10331.

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### **BOOKS**

#### **2022**

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#### **2014**

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27. Munoz-Garcia J, Lézot F, Cochonneau D, Grigoriadis AE, **Heymann D**. Mammalian models of bone sarcomas. In **Bone Cancer 3<sup>rd</sup> Edition, Publisher Academic Press (Elsevier) (Ed Heymann D.), chapter 3, pp 27-34.**

26. Tellez-Gabriel M, **Heymann D**. Liquid biopsy and circulating tumor cells in bone sarcomas: identification of new biomarkers and analysis of the tumor heterogeneity. In **Bone Cancer 3<sup>rd</sup> Edition, Publisher Academic Press (Elsevier) (Ed Heymann D.), Chapter 35, pp 487-500**

#### **2021**

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2. Jacques Y, **Heymann D**, Minvielle S, Godard A. HILDA/LIF. In « Les Cytokines » Ed. Masson, Chapt. 24, 2<sup>nd</sup> Ed. 1996, 349-365.

1. **Heymann D**, Passuti N, Daculsi G. Os hybride: "un substitute osseux vivant". In **Cahiers d'enseignement de la SOFCOT**, n°57 "Biomatériaux de substitution de l'os et du cartilage", Expansion Scientifique Française Ed., 1996, 108-112.

## **INVITED CONFERENCES (from 2009) (+ more than 250 poster/oral communications)**

### 2009

- The molecular OPG/RANK/RANKL triad and bone tissue: basic aspects and therapeutical interest. **Société Française d'Immunologie 12e Colloque Cytokines. 18-20 May 2009, Le Croisic (France).**

- Glycosaminoglycans and osteoclastogenesis. **17<sup>th</sup> Symposium on glycosaminoglycans. 21-23<sup>th</sup> September 2009, Villa Vigoni (Menaggio, Italy).**

- Synergistic inhibition of osteosarcoma cell growth by combination of RAD001 (Everolimus) and zoledronic acid), **4th PreClinical Working Conference, 1 -3 October 2009, Cervo Ligure (Italy).**

### 2010

- Développement d'inhibiteurs RANK/RANKL et modèles pré-cliniques. **1er Cours Franophone Supérieur sur le Cancer du Sein en Situation Métastatique. 7-9 January 2010, Nice (France).**

- Development of RANK/RANKL inhibitors and pre-clinical models. **5<sup>ème</sup> Journées Scientifiques du Cancéropôle CLARA. 30-31 March 2010, Lyon (France).**

- Factor VIII/von Willebrand factor complex controls RANKL-induced osteoclastogenesis and cell survival **Canadian Hemophilia Physician Updat 2010. 25-26 June, 2010, Vancouver (Canada)**

- Lessons to be learned from osteosarcoma. **10<sup>th</sup> International Conference on Cancer-Induced Bone Disease. 22-25 September 2010 Sheffield (UK).**

### **2011**

- Is it possible to predict environment targeted drug efficacy: the antiosteoclastic approaches. **2<sup>nd</sup> Edition of prognosis and prediction in breast cancer. St Paul de Vence, (France), 18-19 January 2011.**

- Biology of primary bone cancer/giant cell tumours. **Skeletal Care Academy 2011, Madrid (Spain) February 25-26, 2011**

- The concept of “bone niche” in the pathogenesis of osteosarcoma. **BIT’s 4<sup>th</sup> Annual World Congress 2011, Dalian (China), May 22-26, 2011**

- Session 5 : Traitements pharmacologiques actuels, Apport des bisphosphonates dans les tumeurs primitives « **Journée Recherche et Santé INSERM – Tumeurs et Métastases Osseuses** », **4 February 2011, Paris**

### **2013**

- Cancer du sein et expression RANK : mythe ou réalité ? **13<sup>ème</sup> Cours Francophone Supérieur sur le Cancer du Sein. Nice 16-18 January 2013.**

- **Webinar organization and moderator, IBSM-BoneKey, 22 March 2013.** Recent advances in the therapy of osteosarcomas.

- **SORRO (Société Orthopédie Rhumatologie Radiologie de l’Ouest), Moderator of the session entitled «Quoi de neuf dans les ostéolyses péri-prothétiques?», Les Sables d’Olonne (France), 05 March 2013**

- Ciblage thérapeutique des ostéolyses. **Transgène, Strasbourg (France) 7 June 2013**

- **Groupe d’Etude des Métastases Osseuses (GEMO), Os et Cancer, actualités 2013. « Rôle clé du système RANK/RANKL dans la physiologie et la pathologie osseuse : nouvelles cibles potentielles », Lille 14 November 2013.**

- **3<sup>ème</sup> Symposium National « Niches Tumorales », 21-22 November 2013 Tours, « Notions de niche dans l’ostéosarcome »**

- **Rencontres de la Recherche en Santé du Grand Ouest, 3 December 2013. « Modèles animaux en oncologie : exemple des sarcomes osseux »**

- **Organisation and chairman of a webinar (IBSM-BoneKey, 22 March 2013) Recent advances in the therapy of osteosarcomas (<http://www.nature.com/bonekey/community/tag/webinar/page/2/>)**

### **2014**

- **Frontiers of Science seminars « Biology and new therapeutic approaches of bone sarcomas, 27 March 2014, Turku (Finland)**

- University of Sheffield, «Therapeutic approach of bone sarcomas by targeting the tumor microenvironment», **Sheffield (UK), 25<sup>th</sup> April 2014.**

- **23th Annual Meeting of the European Orthopaedic Research Society (EORS), “Targeting of bone niche for the treatment of bone sarcomas”, 2/4 July 2014, Nantes.**

- **Société Française de Chirurgie Orthopédique et Traumatologique (SOFOT 2013), Chairman of the session entitled “Bone Fragility», Paris 11 November 2014.**

- **4<sup>th</sup> National Symposium ‘Tumour Niche”, Tours (France), 24-25 Novembre 2014, Chairman of session entitled “Biomarkers and Therapeutic Targeting”**

## **2015**

- **37<sup>th</sup> meeting of The Scandinavian Sarcoma Group, Stockholm, 20-22<sup>th</sup> May 2015.** « The microenvironment of sarcoma as sources of therapeutic targets »
- **2<sup>nd</sup> of DEPArray user meeting. Bologna, Italy, November 10-11, 2015.** Interests of the DEPArray<sup>TM</sup> for studying the pathogenesis of osteosarcoma.
- **6<sup>th</sup> Mellanby Centre Research Day, Sheffield, 4th December 2015.** Bone tumours in children : new perspectives.
- **3<sup>rd</sup> Bone Oncology and Tumour Microenvironment workshop, 16 October 2015.** The University of Sheffield. Osteosarcoma has arrived in Sheffield.
- **Annual meeting of Academic Unit of Oncology and Western Park Hospital, Sheffield, 6 November 2015.** Bone sarcoma : new projects in Sheffield.

## **2016**

- **29th European Musculo-Skeletal Oncology Society (EMSOS),** Invited conference, « Tumour heterogeneity of bone sarcomas : the next challenge », 25-27 May 2016, La Baule, France.
- **University of Leiden (Leiden University Medical Centre)** « Tumour microenvironment as a source of therapeutic targets in osteosarcoma" 2 June 2016.
- **Société Française de lutte contre les Cancers et les leucémies de l'Enfant et de l'adolescent (SFCE),** « Méthodes d'Analyse et Intérêt Clinique de l'Hétérogénéité Tumorale: Cas des Sarcomes Osseux", Curie Institute, Paris 25 December 2016

## **2017**

- **2<sup>nd</sup> Symposium on Advances in Cancer Immunology and Immunotherapy meeting,** « Circulating tumor cells and epithelial to mesenchymal transition (EMT) ». Athens (Greece) 15-17 December 2016.
- **Invited conference by the UMR E 4320 TIRO-MATOs CEA/Univeristy of Nice** (Mécanismes biologiques des Altérations du Tissu Osseux), **31 March 2017.** Interleukin-34: mechanisms of action, biological functions and therapeutic interests in oncology.
- **30<sup>th</sup> Meeting of European Musculo-Skeletal Oncology Society (Budapest, Hungary, 26-28 April 2017).** "Circulating Tumour Cells as a biomarker of early/recurrent disease and therapeutic response in a preclinical model of osteosarcoma ».
- **DEPArray workshop (Innovation hub, Cancer Centre at Guy's Hospital, London ; 16 June 2017).** "Dielectrophoresis-based microchip for the study of gap junctional intercellular communications and early/recurrent disease in a preclinical model of osteosarcoma".
- **4<sup>th</sup> European Bone Sarcoma Networking (London, 21-23 June 2017).** «Circulating tumour cells »
- **Sheffield Experimental Cancer Medicine Centre (ECMC), 30th June 2017,** « Rare Tumours »
- **13-15<sup>th</sup> September 2017 European Orthopedic Research Society.** « Quality and quality control in tissue banking, gene and cellular therapy » (workshop: « Cell and tissue banking for tissue engineering »)
- **4<sup>th</sup> DEPArray user meeting, Bologna, Italy, 26-27 September 2017.** "Analysis of the early events in metastatic in osteosarcoma"
- **4<sup>th</sup> meeting of the International Society of Cancer Metabolism (ISCaM), Bertinoro, Italy, 19-21 October 2017.** « Tumour Heterogeneity: The Key Advantages of Single-Cell Analysis »
- **Mellanby Centre Non-coding RNAs in Bone and Cartilage Workshop (Sheffield, UK) 19-20 October 2017.** "miRNA and osteosarcoma"

## **2018**

- **45<sup>th</sup> European Calcified Tissue Society (Valencia, Spain), 26-29 May 2018**, « RANKL and Oncogenesis »

- **8th International Workshop on Advances in the Molecular Pharmacology and Therapeutics of Bone and other Musculoskeletal Diseases and Cancer and Bone Society 2018 Meeting, 30 June -3 July 2018**. “Sarcoma and bone tumours”

- **EuSARC 2018, The biology of sarcoma a residential workshop, Bertinoro (Italy), 31 May-2 June 2018**, “Analytical methods to assess tumor heterogeneity”

- **5<sup>th</sup> DEPAArray user meeting, Philadelphia, USA, 18-19 September 2018**. “Rare cell events in sarcoma”

- **27th Congress of European Association of Tissue Banks, October 17-19, Lille, FR**. « Quality control in tissue banking »

- **Réunion d'automne de la Société Française des Cancers de l'Enfant (Paris, FR), 2-27 Novembre 2018** « Hétérogénéité Tumorale des Sarcomes Osseux »

- **4th Symposium Advances in Cancer Immunology and Immunotherapy, 29 Nov-1 Dec 2018, Athens Greece**. « Therapeutic advances in immunotherapy in the field of mesenchymal tumors. »

## **2019**

- **International osteosarcoma research symposium. In memory of Frankie Biggs. 31 January 2019. London, UK**. « Isolation of osteosarcoma circulating tumor cells through parsortix. »

- **46<sup>th</sup> European Calcified Tissue Society, Budapest (Ungary), 10-14 May 2019**. « Molecular mechanisms driving primary bone sarcomas. »

- **Bisphosphonates 2019, Celebrating 50 years. Sheffield (UK), 15-17 July 2019**. « Bisphosphonates in primary bone tumors – do they have a role ? »

## **2021**

- **10<sup>ème</sup> Symposium du Groupe d'Etude des Métastases Osseuses (11-12 Mars 2021)**. “Tumeurs à cellules géantes: physiopathologie”

- **Innovative Therapies for children cancer (ITCC, « Solid tumour biology day » (Virtual meeting, UK), 18<sup>th</sup> June 2021** « MultiTyrosine Kinase inhibitors in bone sarcomas: targets and clinical need »

- **Joint Oncology/Institute of Reproductive and Developmental Biology Seminar series (Imperial College of London, UK). 07<sup>th</sup> October 2021**, « Interleukin-34 and M-CSF: more than twin cytokines ».

## **2022**

- **Association Française d'Histotechnologie, Marseille 16-17 Juin 2022**, “Identification des cellules du tissu osseux par histochimie enzymatique et immunohistochimie”

- **University of Chile, 9<sup>th</sup> August 2022**, “Surgical pathology of the Temporomandibular Joint Course for trainees” “Pathophysiology of the osteoarticular diseases”.

- **University of Chile (Santiago, Chile), 5<sup>th</sup> October 2022**. « Interleukin-34 and M-CSF: more than twin cytokines ».

- **University of Chile (Santiago, Chile), 6<sup>th</sup> October 2022**. « Bone sarcomas: interest of liquid biopsies to follow the tumour heterogeneity».

- **Medical College of Wisconsin, Blood Research Institute (USA), 6<sup>th</sup> December 2022**, “FVIII: biological activities beyond hemostasis”

- **Course on Sarcomas in children and AYA, from biology to clinic (12-13 December 2022, Paris).** « Microenvironnement in bone tumors »

### **2023**

- « **Precision Online webinar « Precision Medicine Panel Discussion »** organized by Perkin Elmer, 23th February 2023 medicine.

- **European Musculo-Skeletal Oncology Society (EMSOS) 2023**, 10-12 May, Bruxelles, Belgique. Key note speaker. "Recent advances in osteosarcoma"

- **Société Française d'Endocrinologie**, 4-7 Octobre (Marseille). «Techniques de culture cellulaire en 3D »

### **PRESS COMMUNICATION**

- **2013, Videos** (<http://www.thinkovery.com/recherche-site?keys=heyman>)

- . Quel Environnement favorise les tumeurs? (Which environment facilitates the tumours?) (09/2013)
- . Le cancer de l'os. (The bone cancer)(09/2013)
- . Qu'est ce qu'un os? (What is a bone?)(09/2013)
- . Comment se diffuse la tumeur? (How migrate the tumour cells?)(09/2013)
- . Quelles relations entre l'âge et le cancer? (Relationships between age and cancer?) (09/2014)
- . Quelle thérapie d'avenir contre le cancer? (Which future therapy again cancer?) (01/2015)

- **University of Nantes**, portrait de Chercheur (<http://www.univ-nantes.fr>)

- **2013, Sciences et Santé**, n°13 March-April 2013: portrait de chercheur, En savoir plus : Isoler les cellules tumorales qui circulent dans le sang des patients victimes d'un cancer de l'os, c'est la mission de la plateforme de tri cellulaire unique en France, DEPArray. A la clé: la prévention des métastases et le développement de thérapies ciblées.

Short article describing the first platform in France and located in Nantes (Heymann's Laboratory), to isolate circulating tumour cells and based on the DEPArray technology

- **2014, Science et Santé**, n°19 March 2014, Ostéosarcome: augmenter l'efficacité de la chimiothérapie (osteosarcoma to improve the efficacy of chemotherapy)

- **2017, Sponsor of the press pack "Tumeurs osseuses : du diagnostic aux travaux de recherche"** (Fondation pour la Recherche Médicale, FR)